

CITY OF BELOIT
April 30, 2001
Sewer Overflows in Wisconsin
March 15, 2001 Proposed Rule

My name is Cheryl Simplot, Environmental Coordinator representing the City of Beloit. The proposed SSO rule is driven by the Departments moving forward with actions that seek to prevent, to the maximum extent practicable, the discharge of untreated sewage to the waters of the state. The recommendations are summarized as follows:

1. The Department must implement improved systems for tracking and follow-up on reports of sanitary sewer overflows (SSOs). Rules and compliance activities need to be consolidated and refined for sewerage systems in operation in the state. The Department must create a comprehensive system that will assure:
 - a. Sewerage collection systems are maintained, operated and managed to prevent the entry of groundwater infiltration and stormwater inflow to the extent practicable and,
 - b. Infiltration and inflow that enters swage collection systems does not cause or contribute to SSO.
2. The Department must initiate an outreach program to ensure that all communities submit timely reports about SSOs from their systems as required in WPDES permits, and become aggressive in correcting the root causes of overflows, particularly excessive infiltration and inflow.
3. Communities in the service area of the Milwaukee Metropolitan Sewerage district must, together with the District, remove sources of infiltration and inflow into the sanitary sewer system.

The City agrees with the Departments communication plan to hold workshops and written instruction to communicate to municipalities the importance of the SSO requirement in their permit. The existing rules related to SSO and in-plant diversion found in Wisconsin Administrative Code NR 102, 110, 205 and 208 do need to be consistent in its application, and congruent with federal regulations.

The City is in favor of creating a single rule or an appropriately cross-referenced set of rules to include the EPA's draft capacity, management, operation and maintenance (CMOM) program. The CMOM rule established by the EPA that the "wet weather" issue is a national enforcement priority. The City believes that the current Compliance Monitoring Annual Report (CMAR) by the Department is an appropriate tool to accomplish this goal.

Risk Management Decisions

The City believes that a weak point for municipalities is not being able to appropriately make risk management decisions regarding various sources of water quality impairment, in addition to the respective water quality improvements and controls may bring, and the costs associated with attaining any improvements in water quality. Risk management decisions are better dealt with in a program such as the Environmental Management System (EMS) since EMS integrates the environment into everyday business. Unfortunately, most municipalities do not operate with an EMS program.

Sewer use Ordinance versus the State Plumbing Code

The City of Beloit's sewer system capacity over the years proves that it can handle excessive rainfall and still met its permit limits. History indicates that in past years many of the SSO events in the City of Beloit are caused by blockages. Most of these blockages are caused by illegal discharges of debris or grease. Excessive grease that causes blockages is a nationwide problem. The guidance for State Plumbing Codes, Comm 82, for sizing grease interceptors is inadequate to protect the sanitary sewers from excessive grease. If the plumbing code adequately addressed proper sizing of traps to begin with, it would significantly reduce the backups caused by excessive grease discharges. Inadequate plumbing codes causes the City's Pretreatment Program to inspect and enforce a grease interceptor as a piece of pretreatment equipment because the problem ends up in the sanitary sewer. This way of doing business is reactive instead of proactive. Pretreatment personnel should have approval authority prior to installation of grease traps just as it has approval for any other pretreatment equipment. Following the current plumbing code does not protect the sewers from excessive grease discharge and in turn does not protect the user from enforcement assessed by the Pretreatment Program.

Backflow Preventors

In 1995 the City incorporated into its sewer use ordinance the requirement of backflow preventor devices. In this ordinance all existing building with floor drains at a minimum must install a backwater drain stop. All new construction must install an in-line backwater valve. This simple and cost effective approach has greatly diminished backups into basements to avoid property damage and health hazards associated with the sanitary sewer backups. I recommend that cost-effective requirement of installing backflow preventors be instituted in all plumbing codes.

While the DNR is concerned on how untreated sewage directly creates an adverse affect on water quality, as mentioned in the executive summary the State has only three municipalities with combined sewer systems. As noted in many of the water quality studies including phosphorus, non-point sources contribute substantial pollutants to the waters of the state. As documented by the state in the executive summary, overall nonpoint sources are one of the greatest threats to water quality impairment while SSOs may also cause-localized impairments to water quality. Milwaukee is highlighted in this proposal as a catalyst to revise the SSO policy due to “unusual storm events” that caused discharges of sewage to Lake Michigan. Since only three municipalities in Wisconsin have combined systems, then one can hypothesis that most of the SSOs in Wisconsin do not reach the waters of the state.

Funding Strategy

The SSO/CMOM programs potentially create a need for municipalities to design a funding strategy to meet the financial requirements of the program. The basic goal of funding is a systematic process to ensure long-term financial support for sustainable utility operations. Regardless of how the programs are viewed there is a trend to increase funding for asset management. Assessing the impacts for repair and replacement include analyzing the magnitude of costs and consider the viability of revised management strategy. Municipalities will need to review, projected costs of asset management, projected financial impacts, projected customer impacts; current sense of urgency, change required in philosophy and education requirements.

The funding aspect ties in with GASB (Government Accounting Standards Board) who is responsible for the Generally Accepted Accounting Principals (GAAP). GASB # 34 requires detailed reporting of costs and revenues by government activity and recognize all infrastructures asset costs and employs an appropriate asset management program. Municipalities are realizing that they have to change their way of doing business in which their core business is to convey and treat wastewater. Performance measures include delivering a high level of service, comply with regulation, deliver service efficiently and maximize capital investment of the community. SSO/ CMOM will need to compete for taxpayer/rate dollars against other mandated programs like the Phase II Stormwater Programs.

In summary, the City agrees that creating a single rule or an appropriately cross-referenced set of rules needs to be established. However, the City believes that the current Compliance Monitoring Annual Report (CMAR) by the Department is an appropriate tool to accomplish this goal. The best management practices such as backflow preventors and proper plumbing codes are proactive solutions versus current reactive solutions such as citations for ordinance of permit violations.

April 27, 2001

Darrell Bazzell, Secretary
Wisconsin Department of Natural Resources
101 South Webster St.
PO Box 7921
Madison, WI 53707

Dear Secretary Bazzell:

As the manager of the Fox River Water Pollution Control Center in Brookfield, Wisconsin, my duties include collection system responsibilities, and I would like to comment on the "Sewer Overflows in Wisconsin-..." report, which I have recently reviewed.

My main concern is a "Zero Tolerance" approach to SSO bypassing events.

Over the last two years we have spent close to five million dollars on collection system upgrades. Another 2.5 million dollars worth of construction is being bid for this construction season. Additionally, we are just closing a 40 million dollar CWF loan for a recently completed plant expansion. This work will "virtually" eliminate any SSO bypassing by the City of Brookfield. In extreme wet weather events however, our system may not be able to hold the remaining I & I that is so difficult to remove. My fear is that, even after this vast amount of money has been spent, the WDNR might require us to spend an equally vast sum of money to squeeze out additional I & I, with very very minor environmental improvement as a result.

An additional concern of mine is the remaining I & I contributed by private sector sources. By most accounts roughly 50 % of system I & I is delivered from the private sector. This is a truly insidious clearwater to remove and comes at extreme costs.

In conclusion, my plea is that the WDNR allows communities some "wiggle room" when it comes to SSO events. I believe that money spent on stormwater pollutant contributions would be a far more cost effective approach resulting in greater magnitude environmental improvements.

Regards,

Ronald E. Eifler, Manager
Fox River Water Pollution Control Center
Brookfield, WI

April 27, 2001

Duane Schuettpehlz
WDNR
Madison, Wisconsin

Re: Sewer Overflows in Wisconsin Report

Dear Duane,

The Sewer Overflows in Wisconsin Report is a very comprehensive overview of sanitary sewer overflows past and present in Wisconsin and more specifically in the Milwaukee Metropolitan Sewerage District (MMSD) service area. The report was very enlightening and the information contained within it could provide hours of discussion for environmentalist and non-environmentalist alike. However, after reading the report, it was difficult to tell if the WDNR is developing its SSO policy based on a statewide assessment of SSO problems or on MMSD's published record of overflows and bypasses. The WDNR must look at the entire state and not just MMSD when developing its SSO policy. A review of Table 2, Number of SSO Events Caused by I/I indicates that a disproportionate share of overflows occurred in the South East Region (SER), where MMSD is located. The same point can be made from the data in Table 3, Approximate Reported Amount of SSO, where eighty percent of the volume of overflows statewide can be attributed to the SER and presumably MMSD. The DNR must be cognizant of the fact that larger communities have the potential to release significantly higher volumes through wastewater overflows and bypasses simply because they serve much larger areas. In essence, the potential for contamination is significantly higher in large metropolitan areas than in the much smaller urban areas of the state.

Setting a zero sanitary sewer overflow standard would place a financial burden on many of the communities that report the small volume overflows. The overflows that occur with high rainfall storms are a lot less environmentally threatening than the pollution from storm water run-off that occurs with every rain event. A Sewer System Evaluation Study (SSES) would be required of each wastewater system to determine what magnitude of rainfall triggers a SSO event. It would be very time consuming and expensive to determine the magnitude of storm event it takes to create a significant SSO or bypass; but that type of study would be required statewide for each individual wastewater system. Each community must determine how a 5-year, a 10-year, etc... storm event affects each individual wastewater system. A comprehensive SSES would be required for all wastewater systems in the state to determine what corrective actions are needed to reduce SSO events to zero. A requirement of this magnitude would place a financial burden on all communities required to reduce SSO events to zero.

A better approach might be to set a less rigid standard for SSO events, that were based on storm events that not only exceeded 24 hour rainfall numbers, but that exceed 1 hour, 2 hour, etc... rainfall numbers. (i.e. not only 3.5 inches of rain in 24 hours, but a 2.0 inches of rain in 2 hours.) Other criteria should be taken into consideration, such as ground saturation or

consecutive days of rain. If there are wastewater systems that are having problems with SSO events, then the state should set standards for and work with, each individual wastewater system to find cost effective ways to reduce not only the number of SSO events, but the pollution potential of each SSO event.

The WDNR is moving in the right direction in its effort to comply with the Clean Water ACT and to protect the waters of the state, but at what expense. A zero overflow policy would place a financial burden on all wastewater system throughout the state, while having minimal impact on the reduction of pollution potential. When the WDNR develops its SSO policy, please look at the entire state and the impact a zero overflow policy will have on all 897-wastewater systems in the state. Do not allow MMSD's much publicized SSO and bypass history to be the deciding criteria for developing the SSO policy.

The City of Sheboygan has worked hard at maintaining its wastewater system and will continue to work on upgrading the wastewater collection system and in its quest to remove I/I. However, overflows that are a result of heavy rainfall events may still occasionally occur. A zero overflow policy would penalize a community that proactively works to improve its wastewater system. A zero overflow policy would place additional financial hardship upon the City. The City looks forward to working with the DNR on the SSO issue and in its efforts to reduce the risk from SSO events. If you have any questions, please give me a call at (920) 459-3464.

Sincerely,

Dale L. Doerr
Wastewater Superintendent.